DOCKET NO. SHIX-CN030036US (STNX01-30036) **PATENT**
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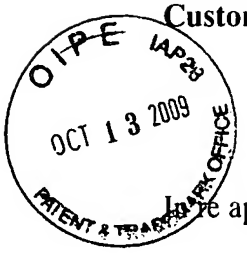

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	:	Yueheng Li, et al
U.S. Serial No.	:	10/580,722
Filed	:	May 24, 2006
For	:	METHOD AND APPARATUS FOR SUPPORTING DOWNLINK JOINT DETECTION IN TDD CDMA SYSTEMS
Group No.	:	2617
Examiner	:	Babar Sarwar
Confirmation No.	:	6472

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Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Appellant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal. The review is requested for the reason(s) stated in the arguments below, demonstrating the clear legal and factual deficiency of the rejections of some or all claims.

STATUS OF THE CLAIMS

Claims 1-24 are pending in the application.

Claims 1-24 have been rejected.

REJECTIONS

Claims 1-9, 16-20 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2007/0030885 A1 to Jechoux, et al (hereinafter "*Jechoux*"). The rejection is respectfully traversed. Claims 10-15 and 21-24 were rejected under 35 U.S.C. § 102(b) as being anticipated by European Patent Application No. EP 1 143 638 A1 to Jechoux, et al (hereinafter "*Jechoux A1*"). The rejection is respectfully traversed.

REMARKS

In the Advisory Action, the Examiner maintains the position that Hoffman anticipates Claims 1-4, 8-11 and 15-18. However, the Office has failed to provide a reference that teaches, expressly or inherently, each and every element as arranged and recited by the claims of the instant application. Further, the Office has failed to put forth any arguments each and has not provided any articulated reason as to how any deficiency (missing element) could be solved in a predictable manner through combination with any other references.

For example, for the convenience of the Panel, Claim 1 recites, inter alia:

> judging whether the CAI (code allocation information) in a downlink timeslot will change in the next TTI (transmission time interval);
>
> inserting the changed CAI as a specific control information into a specified field in the traffic burst in the downlink timeslot corresponding to current TTI if the CAI will change;
>
> sending the traffic burst containing the specific control information to each UE (user equipment) in the downlink timeslot via a downlink channel.

Independent Claims 1, 7, 16 and 19 each specify "**judging** whether the CAI (code allocation information) in a downlink timeslot will change in the next TTI (transmission time interval)" and "inserting the changed CAI as a specific control information into a specified field in the traffic burst in the downlink timeslot corresponding to current TTI **if the CAI will change**." These elements are not taught or suggested by *Jechoux*, therefore the rejection is legally and factually.

The Applicants respectfully note that the Examiner appears to misinterpret the disclosure in the *Jechoux* reference with regard to these element. In particular, the base station possibly having a knowledge

of spreading codes is not the same or an equivalent to **judging** whether the CAI in a downlink timeslot **will change in the next TTI** as claimed, and cannot meet this element. Further, including a midamble in a downlink communication is not the same or an equivalent to inserting the changed CAI as a specific control information into a specified field in the traffic burst in the downlink timeslot corresponding to current TTI **if the CAI will change**."

In the Advisory Action, the Examiner contends that "[t]he correlation of the midambles is to the users as disclosed in Para [0042]-[0044]. Therefore 'judging whether the CAI (code allocation information)...in the next TTI.'" However, *Jechoux* teaches, in paragraphs [0042]-[0044] that a midamble is formed corresponding to each mobile station and that a few midambles are selected from the formed midambles. *Jechoux* further teaches that "that the midambles are used to form a word which describes some transmission parameters of signals of each mobile station in communication with a base station." (*Jechoux*, paragraph [0038]) The formation and selection of midambles does not teach or suggest "judging whether the CAI ... will change in the next TTI." There is no teaching regarding a change in the transmission information or a judgement that a change will occur in a next transmission time interval. The contention by the Examiner that forming and selecting midambles is "[t]herefore judging whether the CAI (code allocation information)...in the next TTI is factually incorrect. Accordingly, the anticipation rejection is factually deficient.

Furthermore, *Jechoux* teaches a midamble is a complex-valued chip sequence and is used by a receive (the base station BTS in the up-link or a mobile station in the down-link) for channel estimation which is needed for the retrieval of the user's signals. (*Jechoux*, paragraph [0008]) The formation and selection of midambles does not inherently teach "judging whether the CAI ... will change in the next TTI." Therefore, the anticipation rejection by the Examiner is legally deficient.

Additionally, in the Advisory Action, the Examiner contends that the "[m]idamble codes are instered into timeslot data 1 and data 2 as disclosed in Para 0039-0050 and 0065-0066, Figs. 5-8. Therefore 'inserting the changed CAI as specific control... TTI if the CAI will change.'" *Jechoux* teaches that the selected midambles represent a word and are sent to a number of mobile stations so that "[e]ach user in this way gets informed which transmission parameters, for example, spreading codes, (besides those which are used by himself) are **currently used in the current timeslot** and this information can be taken as input for a detection algorithm improving its performing and its efficiency." (*Jechoux*, paragraph [0050]). (Emphasis

added). Clearly, *Jechoux* teaches that the midambles are related to the current time slot. Further, the midambles do not reflect a changed information. Rather, the midambles are related to existing allocation information for connected users. Additionally, *Jechoux* does not teach that the midambles are transmitted "in a current timeslot if the midambles (relied upon by the Examiner to teach the CAI) will change." In contrast, the Claims of the instant application recite that "if the CAI will change (e.g., in the next TTI), then the CAI is inserted as specific control information into a specified field in the traffic burst in the downlink timeslot corresponding to the current TTI. The contention by the Examiner that the midambles teach a changed CAI and are inserted if the CAI will change is factually incorrect. *Jechoux* contains no teaching, express or inherent, for "**inserting the changed CAI** as a specific control information into a specified field in the traffic burst in the downlink timeslot corresponding to current TTI **if the CAI will change.**" The anticipation rejection by the Examiner is factually and legally deficient.

In regards to independent Claim 10, 13, 21 and 23, the Examiner argues that *Jechoux A1* anticipates Clams 10, 13, 21 and 23 using the same ration as the application of *Jechoux* to Claims 1, 7, 16 and 19. Similar to *Jechoux*, *Jechoux A1* contains no disclosure for **judging** whether the code allocation information in a downlink timeslot **will change in the next transmission time interval**. *Jechoux A1* merely discloses a problem regarding conventional joint detection algorithms and that, in such algorithms, the base station "can" have knowledge of the parameters. Having knowledge of parameters does not inherently teach making a judgement regarding whether the ACN (relied upon by the Examiner to teach the CAI) will change. Additionally, *Jechoux A1* contains no disclosure for inserting the changed ACN as a specific control information into a specified field in the traffic burst in downlink timeslot corresponding to current TTI if the ACN will change. *Jechoux A1* teaches, and is limited to teaching, a method to inform a mobile station regarding spreading code allocations to other user's. The contention by the Examiner that the possible knowledge regarding parameters teaches judging whether a CAI will change in a next TTI and that informing a number of mobile stations regarding the spreading allocations to other users teach inserting a changed CAI if the CAI will change are factually incorrect. *Jechoux A1* contains no teaching, express or inherent, for "**inserting the changed CAI** as a specific control information into a specified field in the traffic burst in the downlink timeslot corresponding to current TTI **if the CAI will change.**" The anticipation rejection by the Examiner is factually and legally deficient.

CONCLUSION

As a result of the foregoing, the Applicants assert that the claims in the Application are in condition for allowance over all art of record, and that the rejections are both factually and legally deficient, and respectfully requests this case be returned to the Examiner for allowance or, alternatively, further examination.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at ***wmunck@munckcarter.com***.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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Date: October 7, 2009

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